

WHAT IS CLAIMED IS:

1. A process for treating a gas containing fluorine-containing compounds and CO which comprises contacting the above described gas with O_2 and H_2O at a temperature of $850^\circ C$ or higher to oxidize the CO to CO_2 ; and then contacting the gas with γ -alumina at a temperature of $600-900^\circ C$ to decompose the fluorine-containing compounds.
2. The process of claim 1, wherein the γ -alumina has a crystal structure which exhibits diffraction lines having an intensity of 100 or more at five angles of $33^\circ \pm 1^\circ$, $37^\circ \pm 1^\circ$, $40^\circ \pm 1^\circ$, $46^\circ \pm 1^\circ$ and $67^\circ \pm 1^\circ$ of the angles of diffraction 2θ measured by an X-ray diffraction apparatus.
3. An apparatus for treating a gas containing fluorine-containing compounds and CO which comprises a heat oxidation vessel having a hollow inside enabling the passage of the above described gas therethrough, a heating means capable of heating the temperature of the gas in the hollow inside to $850^\circ C$ or higher, a gas inlet, an O_2 inlet and H_2O inlet; and a catalytic reaction vessel which is under fluid-communicating condition with the heat oxidation vessel and has been filled with γ -alumina.
4. The apparatus of claim 3, wherein the catalytic reaction vessel further has a heating means capable of heating the γ -alumina to 600 to $900^\circ C$.
5. The apparatus of claim 3, wherein the γ -alumina has a crystal structure which exhibits diffraction lines having an intensity of 100 or more at five angles of $33^\circ \pm 1^\circ$, $37^\circ \pm 1^\circ$, $40^\circ \pm 1^\circ$, $46^\circ \pm 1^\circ$ and $67^\circ \pm 1^\circ$ of the angles of diffraction 2θ measured by an X-ray diffraction apparatus.
6. The apparatus of claim 3, wherein the heat oxidation vessel further has a contact auxiliary means for enhancing the contact efficiency of the CO in the gas with O_2 and H_2O .
7. The apparatus of claim 4, wherein the heat oxidation vessel further has a contact auxiliary means for enhancing the contact efficiency of the CO in the gas with O_2 and H_2O .
8. The apparatus of claim 5, wherein the heat oxidation vessel further has a contact auxiliary means for enhancing

the contact efficiency of the CO in the gas with O_2 and H_2O .